

**Case 3542*****Trachelus* Jurine, 1807 (Hymenoptera, CEPHIDAE): proposed precedence over *Astatus* Panzer, [1801]**

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**Abstract.** The purpose of this application, under Article 23.9.3 of the Code, is to conserve the widely used genus name *Trachelus* Jurine, 1807 in its accustomed usage. The name *Trachelus* is threatened by its senior synonym *Astatus* Panzer, [1801]. Strict application of the Principle of Priority would also involve the recombination with a new genus name for the ‘black grain stem sawfly’, *Trachelus tabidus* (Fabricius, 1775), which is a pest of cereals in the southern West Palaearctic and in North America. It is proposed that *Trachelus* should be given precedence over *Astatus* whenever the two are considered to be synonyms.

**Keywords.** Nomenclature; taxonomy; Hymenoptera; CEPHIDAE; *Astatus*; *Trachelus*; sawfly; West Palaearctic; Nearctic.

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1. Panzer ([1801a], Heft 83, p. 12) proposed the generic name *Astatus*, type species by monotypy *Sirex troglodyta* Fabricius, 1787 (pp. 258–259). We follow Sherborn (1923, p. 567) in dating Hefte 80–83 of Panzer, including the original description of *Astatus*, to the year 1801. Evenhuis (1997, p. 600) gave the possible period of publication as after June 1800 and before 17 June 1801. Rohwer (1911a, p. 74) designated *Sirex troglodyta* Fabricius, 1787 as the type species of *Astatus*, providing proper reference to Panzer’s ([1801a]) description but erroneously quoting Jurine as the author of *Astatus*. The citation of the wrong author was corrected by Rohwer (1911b, p. 218). Rohwer’s (1911a) subsequent designation of a type species is not valid, because Panzer ([1801a]) in Heft 83 (p. 12) included *A. troglodyta* as the only *Astatus* species, which is therefore type species by monotypy (Taeger & Blank, 2006, p. 327). Additional species were later associated with *Astatus* by Panzer ([1801b]) in Heft 85 published on 26 December 1801 (Evenhuis, 1997, p. 600).

2. Latreille (1797, pp. 114–115) proposed the generic name *Astatus* for a wasp with no species originally included. In the preface of his book, Latreille (1797, p. xiii) corrected the spelling of *Astatus* Latreille, 1797 to *Astata*, which represents the correction of an incorrect original spelling under the provisions of Article 32.5.1.1 and thus a justified emendation under the provisions of Article 33.2.2 of the Code. Latreille (1803, pp. 336–337) included as the first species *Tiphia abdominalis* Panzer, [1798] (Heft 53, p. 5), which became type species by subsequent designation (Opinion 139, p. 42, 20 December 1942). The name *Astata* is currently applied to a genus of SPHECIDAE (Pulawski, 2010). Several authors, for example Abe & Smith (1991), erroneously claimed *Astatus* Panzer, [1801] (CEPHIDAE) to be a junior homonym of

*Astatus* Latreille, 1797 (SPHECIDAE). Konow (1908) stated that such a homonymy does not exist due to the emendation included in Latreille's (1797, p. xiii) preface. The incorrect original spelling *Astatus* Latreille, 1797 accordingly has no influence on the present case.

3. [Jurine] in Panzer (1801c, p. 163) proposed the generic name *Astatus* and included 'Sirex pygmaeus. *Banchus spinipes* Panzer (*Banchus viridator* Fabric. inedit.)'. *Astatus* [Jurine], 1801 is unavailable, because it was included in the work commonly known as the 'Erlangen List', which has been suppressed under the plenary power for the purpose of nomenclature (Opinion 135, 13 June 1939; Direction 4, 12 June 1954).

4. Jurine (1807, pp. 70–72, plate 2, fig. 9) replaced the generic name *Astatus* [Jurine] in Panzer, 1801 by *Trachelus*. Of the six species included originally in *Trachelus*, Rohwer (1911a, p. 91) designated *Sirex tabidus* Fabricius, 1775 (p. 326) as the type species of *Trachelus*. It is evident from Jurine's (1807, p. 72) list of species that the genus was intended to include species associated with *Astatus* by Panzer ([1801a], [1801b]) and some of the species associated with *Astatus* by Klug (1803, pp. 47–56): 'Troglodita. Fabr. Cephus', a misspelling of the species-group name *troglodyta*, originally described as *Sirex troglodyta* Fabricius, 1787 (pp. 258–259), currently treated as a valid species of the genus *Trachelus* Jurine, 1807; 'Compressus.\*Fabr. Cephus', originally described as *Sirex compressus* Fabricius, 1793 (p. 131), currently treated as a valid species of the genus *Janus* Stephens, 1829; 'Pygmaeus. Fabr. Cephus', a misspelling of the species-group name *pygmeus*, originally described as *Sirex pygmeus* Linnaeus, 1767 (pp. 929–930), currently treated as a valid species of the genus *Cephus* Latreille, 1803; 'Tabidus. Fabr. Cephus', originally described as *Sirex tabidus* Fabricius, 1775 (p. 326), currently treated as a valid species of the genus *Trachelus* Jurine, 1807; 'Satyrus. Panzer. Astatus', originally described as *Astatus satyrus* Panzer, [1801b] (p. 12), currently treated as a valid species of the genus *Hartigia* Schiødte, 1839; 'Haemorroidalis. Gravé', originally described as *Tenthredo haemorrhoidalis* Fabricius, 1781 (p. 417), currently treated as a valid species of the genus *Hartigia* Schiødte, 1839.

5. Billberg (1820, p. 98) described *Cepha*, type species by monotypy *Sirex tabidus* Fabricius, 1775 (p. 326). Owing to its similarity to the well-known genus-group name *Cephus* Latreille, 1803, Morice & Durrant (1915, p. 384) proposed the replacement name *Trachelastatus*. *Cepha* Billberg, 1820 and *Trachelastatus* Morice & Durrant, 1915 are junior objective synonyms of *Trachelus* Jurine, 1807 by virtue of having the same type species.

6. Erroneously supposing *Astatus* to have been described twice, by Latreille (1797) and Panzer ([1801]), Schulz (1906, p. 211) proposed the replacement name *Eumetabolus* for *Astatus* Panzer, [1801].

7. Benson (1935) subdivided the group within CEPHIDAE, which today is represented by the same genus *Trachelus*, into *Ateuchopus* Konow, 1896, *Microcephus* Benson, 1935, *Neateuchopus* Benson, 1935 and *Trachelus* Jurine, 1807, and listed 'Astatus Jurine auct., 1801, nec Latreille, 1796' as a synonym of *Trachelus*. In a subsequent work, Benson (1946) followed a wider concept of *Trachelus*, in which he grouped 'together into one genus [i.e. into *Trachelus*] the species previously included in *Trachelus* and *Eumetabolus*, largely on the similarity in the form of their female saw-sheaths and their male sternites' (p. 104). He listed as junior synonyms *Ateuchopus*,

*Microcephus*, *Neateuchopus*, and in addition *Eumetabolus* Schulz, 1906 and *Trachelastatus* Morice & Durrant, 1915. The name *Astatus* Panzer, [1801] was not considered by Benson (1946), but its synonymy with *Trachelus* has been implied by the synonymy of its replacement name *Eumetabolus*. Subsequent works have usually followed Benson's (1946) concept. *Trachelus* now comprises eight species native to the Palaearctic (Blank et al., 2009, Taeger et al., 2010). None of these works has discussed the priority of *Astatus* Panzer, [1801] over *Trachelus* Jurine, 1807 until Taeger & Blank (2006, p. 327) and Taeger et al. (2010, p. 53). Although without comment, Dusmet (1949) used the name *Astatus* in combination with '*niger* Harr.', which possibly corresponds with *Trachelus troglodyta* following Konow's misinterpretation of this name. Also without providing an explanation, Weiffenbach (1982) treated as valid genus names both *Astatus* for *A. flavicornis* (Lucas, 1849) (Lucas [1848]–1849, pp. 342–345, pl. 19) and *Trachelus* for *T. tabidus* and *T. 'troglodytes'*, a misspelling of *troglodyta*.

8. *Trachelus tabidus* (Fabricius, 1775), known as the 'black grain stem sawfly', is native to the southern part of the West Palaearctic region and it was inadvertently introduced into the Nearctic. Larvae of *Trachelus*, particularly of *T. tabidus*, and of *Cephus pygmeus* (Linnaeus, 1767) are common pests of cultivated grain crops such as durum and bread wheat, barley, and oats. They feed internally in the stalks causing reduced grain weight and losses at harvest due to stalk break. About 85 years ago *T. tabidus* and *C. pygmeus* achieved pest status in the United States (Gahan, 1920; Houser, 1935; Udine, 1941; Wallace & McNeal, 1966). In the West Palaearctic, *Trachelus* species have been the subject of various pest management publications (e.g. Gol'berg, 1986; Baniță et al., 1992; Miller et al., 1993). Between 1917 and 2004 at least 25 works were published in applied entomology including information on *T. tabidus* and related species of *Trachelus*. Among 203 works published in various fields of entomology between 1900 and 2010, which refer to *tabidus*, 192 treated this species in *Trachelus* and seven in the subgenus *Trachelus*. Taxonomic catalogues and major identification works published during the past 60 years have consistently used the name *Trachelus* as valid but not *Astatus* (e.g. Benson, 1951, 1968; Middlekauff, 1969; Verzhutskii, 1973; Smith, 1979; Mucbe, 1981; Abe & Smith, 1991; Goulet, 1992; Zhelochovtsev & Zinovjev, 1993; Stange, 1997; Taeger et al., 2010). Only the outdated North American Catalog of Ross (1951) still treated *tabidus* under *Cephus* (*Trachelus*). A list of 255 works published after 1946, which demonstrates the widely accustomed use of *Trachelus* for the genus and *T. tabidus* for the pest organism, has been forwarded to the Commission Secretariat. A Google search for the string '*Trachelus tabidus*' provided a total of 1,600 hits of various origins, while '*Astatus tabidus*' was found only 70 times, mostly referring to digitalised historical publications.

9. Strict application of the Principle of Priority would result in considerable nomenclatural confusion, because a pest organism, *Trachelus tabidus*, would receive a new generic name. Since the senior synonym *Astatus* Panzer, [1801] has been used several times after 1899 as a valid genus-group name until Benson's (1946) revision and rarely also later, the priority of the junior synonym *Trachelus* Jurine, 1807 cannot be reversed in accordance with the provisions of Article 23.9.1.1 of the Code. We propose that, to ensure nomenclatural stability, the Commission rule to give priority to *Trachelus* Jurine, 1807 over *Astatus* Panzer, [1801] in its accustomed usage

whenever the two generic names are considered to be synonyms. The case has to be referred to the Commission in accordance with the provisions of Article 23.9.3 of the Code.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the generic name *Trachelus* Jurine, 1807 precedence over the name *Astatus* Panzer, [1801], whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the following names:
  - (a) *Trachelus* Jurine, 1807 (genus: masculine), type species by subsequent designation by Rohwer (1911a) *Sirex tabidus* Fabricius, 1775, with the endorsement that it is to be given precedence over the name *Astatus* Panzer, [1801], whenever the two are considered to be synonyms;
  - (b) *Astatus* Panzer, [1801] (genus: masculine), type species by monotypy *Sirex troglodyta* Fabricius, 1787, with the endorsement that it is not to be given priority over the name *Trachelus* Jurine, 1807, whenever the two are considered to be synonyms;
- (3) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *tabidus* Fabricius, 1775, as published in the binomen *Sirex tabidus* (specific name of the type species of *Trachelus* Jurine, 1807);
  - (b) *troglodyta* Fabricius, 1787, as published in the binomen *Sirex troglodyta* (specific name of the type species of *Astatus* Panzer, [1801]).

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